# The Outlook for U.S. Agriculture

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I would like to welcome you all to this year's 91<sup>st</sup> annual Agricultural Outlook Forum. We have a great program for you as the Deputy Secretary mentioned. In particular, I would like to highlight the Secretary's upcoming discussion later this morning about innovation, Big Data, and the next steps in steadily improving agricultural productivity.

Before I begin my remarks, I would like to recognize Joe Glauber, who recently retired after 7 years as USDA's Chief Economist and 30 years of Federal service. It was a pleasure to work with Joe, we miss you, and so does the Department. Thank you for your leadership.

When thinking of how to begin my first Outlook address to this Forum, I found myself marveling at the remarkable history and productivity of U.S. agriculture. Since 1948, U.S. producers have more than doubled the value of output and total factor productivity per dollar of input (figure 1). The increases in value and productivity have been fueled by investments in agricultural research and development, both public and private. Those are highly effective investments, returning more than \$20 for every \$1 invested.

In 1954, the number of tractors in the United States eclipsed the number of horses and mules on farms. Over the next decade, combine harvesters dramatically changed the harvesting of most field crops and adoption of mechanical milking machines and milk tanker trucks rapidly changed dairy farming. The 1960s also marked the beginning of the green revolution, with development of chemical fertilizers, especially anhydrous ammonia, and pesticides as well as improved hybrids. Animal agriculture witnessed its own advancements in breeding, nutrition, and disease control, and in efficiency gains through vertical integration, beginning with the poultry industry in the 1950s and 60s. In the 1970s, no-till residue management began to become popular, joining other conservation practices being adopted to preserve soil and improve watersheds. Farmers began using satellite technology for precision agriculture in the early 1990s, allowing tailoring of inputs and production practices to varying field characteristics. In 1994, FDA granted the first approval for a whole food produced through biotechnology, the FLAVRSAVR<sup>TM</sup> tomato. In the same year, Congress approved the Uruguay Round of the General Agreement on Tariffs and Trade (GATT), which launched the Word Trade Organization (WTO) and included commitments to reduce support to agriculture for the first time since the GATT began in 1948. In 1997 weed and insect resistant biotech seeds for soybeans and cotton became commercially available. The 2000s saw the commercialization of drought resistant rice, soybeans, and corn varieties. And there are other advances on the horizon.

USDA has helped lead and support agricultural innovation across the decades. One primary USDA support is in the form of data, such as the data supplied by USDA's Market News service, which celebrates its 100<sup>th</sup> anniversary this year. USDA's Office of Markets established the market news service in 1915, following a successful experiment with market reporting on Louisiana strawberries. At that time data collection and analysis meant having people on site at markets and shipping points, hand recording data on rail car movements, product quality, prices, weather and other conditions affecting markets and wiring it by telegraph to Washington for editing and rapid redistribution by telegraph to the network of market news field offices. Buyers and sellers could access the compiled data by telephoning the field offices, subscribing to free print reports delivered by daily mail, or through local daily radio and newspaper reports. Much like the hand data collation and early punch card machine analysis used to develop price forecasts in the early years of the Agricultural Outlook Conferences, that state-of-the art national collection and distribution of agricultural market news revolutionized the way farmers and commercial traders understood the "big picture" of U.S. agriculture in the early years of the 20<sup>th</sup> century.

Now in the early years of the 21<sup>st</sup> century, data gathered electronically on individual fields in real-time or data recorded in the process of millions of individual sales on electronic markets can be instantaneously uploaded, analyzed, and reported, transmitted by satellite and ready to be used immediately or stored for reanalysis in conjunction with other electronic databases. Those new data collection methods–producing what we call Big Data–have the potential to revolutionize again how producers and the agriculture supply chain understand and interact with global agricultural markets –enhancing yields, improving risk management, and increasing market transparency.

The remarkable ability of producers to generate more output with fewer inputs at a rate equal to or faster than global demand growth leads to enhanced farm profits and lower commodity prices. Farm equity, which equals assets minus debt, is one measure of farm sector health and represents wealth generation. Leading into the 2015 crop year, the farm equity of U.S. producers on average is the highest it has ever been since we began collecting and reporting on profitability in 1960 (figure 2). During the recent years of record net farm income (2011-2014), U.S. farmers added an estimated \$642 billion to farm equity.

At the same time, productivity gains have resulted in a long-run downward trend in agricultural commodity prices in real terms since World War II (figure 3). Between 2005 and 2010, U.S. corn use for ethanol grew by almost 700 million bushels per year. That increase in demand coupled with several supply shocks in key growing regions led to substantial drawdowns of global stocks for grains and oilseeds and resulted in price spikes for major commodities, particularly in 2007/08, 2010/11, and 2012/13. However, looking forward into 2015 and out over the next 10 years, we project that real output growth will keep pace with or exceed demand, reflected in a declining but flattening long-run price trend.

Currently farm-value accounts for about 17 percent of the price of food at the grocery store. So increased farm productivity also helps keep food prices low. The amount of money the average American spends on food has fallen from a high in 1933 of about 25 percent of real disposable income to the a low of about 10 percent, which has remained relatively constant since 2000 (figure 4). The United States spends less on food for home consumption today as a percent of disposable income than any other OECD country.

Keeping in mind those longer-run trends, I will now turn to the short-run outlook for the agricultural economy. Let me start with a discussion of several factors that will likely affect the outlook for the agricultural economy over the next year. I will then turn to the 2015 forecast for trade, crops, livestock, and farm sector profitability. Lastly, I will discuss the short-run implications for food prices.

# 1. Short-run factors affecting the agricultural economy

In the short-run, there are several issues that will affect the agricultural economy, including lower energy prices, lower transportation costs, the appreciation of the U.S. dollar, drought intensification in the West, and Farm Bill implementation.

<u>Crude oil and natural gas prices are much lower than anticipated</u>. Natural gas prices are much lower today than expected just a few years ago due to the large increase in domestic production of shale gas. Since 2008, the real price for natural gas at the wellhead has fall by 30 percent. The recent fall in crude oil prices is even more dramatic. Since 2013, the real price for imported crude oil has dropped by 50 percent (figure 5).

Lower energy prices are helping farms in many ways. Inputs with direct production links to natural gas and petroleum, such as fertilizer, pesticides, and diesel, have all become less expensive. Transportation costs for delivering inputs to farms and for shipping commodities are now lower than expected just months ago, as are heating and cooling costs for livestock and drying costs for grain.

The reduced cost of petroleum makes biofuels less attractive as a substitute for gasoline and diesel, however. Ethanol margins have been squeezed as the price for gasoline dropped to \$1.55 per gallon in many wholesale markets (figure 6). On the other hand, falling prices boost consumer demand for gasoline. And because ethanol provides a relatively inexpensive additive for oxygen and octane in regular E10 gasoline, it is unlikely that ethanol demand will fall much below that needed to supply a 10 percent blend. Increased gasoline demand will keep ethanol production high.

That can be seen in data from 2014 (figure 6), when the ethanol industry produced a record quantity of ethanol for the domestic and export markets, despite not having a finalized mandate for 2014 under the Renewable Fuel Standard (RFS) program. An overall blend percentage of much greater than 10 percent was envisioned the Energy Independence and Security Act of 2007 (EISA), which established the RFS program. To meet those higher levels, consumers will have to demand higher amounts of E85 and E15 gasoline, but relatively low oil prices will make increased sales of those higher ethanol blends more difficult to realize.

Transportation costs fall in 2015. In addition to falling energy prices, which will make transportation less expensive in 2015, several situations that have disrupted trade in 2014 should be resolved in 2015, easing the ability of U.S. producers to sell to global markets. First, the West Coast port labor negotiations are progressing with the participation of a federal mediator and most recently the Secretary of Labor. Resolution of those negotiations will untangle the backlog of containerized shipping into and out of the West Coast ports. That dispute has slowed agricultural trade significantly. More than 60 percent of containerized agricultural exports generally move through West Coast ports valued at more than \$37 billion.

Second, rail transport in the Upper Midwest is expected return to normal in 2015. The costs of shipping grain and oilseed by rail from production areas in the Upper Midwest to ports on the West Coast and Gulf Coast were significantly elevated last year due to congestion problems on the major railways in that region. The congestion was due to many things, such as extensive track maintenance work, extremely cold temperatures at the beginning of 2014 and increased shipments of intermodal units, coal, and crude oil out of the Bakken Shale formation. The costs of railcar service for grain transport remained historically high throughout 2014, and shot up by more than 80 percent in some months (figure 7). An increase of \$1,000 per railcar translates roughly into an additional \$0.25 per bushel in the cost of shipping, which depressed local cash prices in some States for grain and oilseeds. Since November, rail freight costs have returned to more typical levels and the amount of grain and oilseeds shipped is approaching record levels.

The U.S. dollar strengthens. As the U.S. economy improved relative to the rest of the world in 2014, the dollar began to appreciate. Recently, to respond to slowing economic growth, China, Japan, Australia, Canada, and the Eurozone have lowered interest rates and/or implemented expansionary monetary policies. Those actions accelerated the appreciation of the dollar beginning last summer. Over the past year, the dollar has increased in value by 8 percent relative to the British pound, by 3 percent relative to the Chinese yuan, by 13 percent relative to the Canadian dollar, and by 19 percent relative to the euro (figure 8). That will make imports cheaper, but will make our exports more expensive for foreign customers. While agricultural exports have been increasing over time, they are not immune to currency fluctuations. The dollar appreciation will likely continue into 2015, although at a more moderate pace. The growth-improving effects of economic stimulus in China, Japan, and the Eurozone, however, will partially offset the impact of a stronger dollar on U.S. exports.

Weather improves in 2015, but drought lingers in the Southwest – The drought situation for many parts of the United States outside of California has improved relative to last year. There remain pockets of drought in several areas of the Southern Plains, but overall the persistent drought in that region since 2011 has eased, improving the outlook for pasture and winter wheat. The severe drought in the Southwest has not improved from last year and continues to affect producers in California (figure 9). NASS data indicate that harvested acres in California fell in 2014 relative to 2013 for field crops, and is down 24 percent since 2011. Harvested rice acres in California were down 25 percent relative to 2011. Acreage and yields are down for many fruit and nut varieties in California as

well. Yields on California's almond trees are down 15 percent relative to 2011. Approximately two-thirds of California is now experiencing extreme to exceptional drought, up from 60 percent last year at this time. Unless precipitation increases substantially over the next few months many producers will again be faced with the prospect of paying high prices for limited water supplies or with the opportunity to sell their water rights and forego production.

Farm Bill implementation continues. The final short-run factor that I will discuss is the new Farm Bill programs that were implemented last year. As noted by the Secretary last week, the new programs have been developed and moved into implementation quickly and efficiently. Producers have already enrolled in many of those programs or will do so shortly, including the Margin Protection Program (MPP) for dairy producers and the new Agricultural Risk Coverage (ARC) and Price Loss Coverage (PLC) for commodity producers (figure 10). Producers are also beginning to purchase policies under the new crop insurance options. We do not expect those programs to shift production decisions, as they are tied to base acres and not planted acres, but it is likely that they will be important in 2015 in protecting producers from losses if prices continue to fall or if weather adversely affects production. As an example, the new livestock disaster assistance programs have already begun to partially reimburse livestock producers for 2012 – 2014 losses. Fiscal year 2014 outlays on those losses are estimated at more than \$4 billion.

While fiscal year 2014 did not see similar payments for crops, ARC and PLC will likely begin to provide assistance to producers in 2015, once ending-year prices and yields are determined. If assistance is triggered, the Farm Service Agency (FSA) will begin sending payments to producers under these new programs in October 2015, a full year later than eligible producers would have received payments under the old direct payment program. Payments under ARC and PLC could be more than \$6 billion in 2015, however, according to recent USDA forecasts.

Two new crop insurance programs, the Supplemental Coverage Option and the Stacked Income Protection Plan for upland cotton, will be available for 2015 crops. Also known as STAX, the new cotton program has contributed to bringing the long-running WTO dispute with Brazil to an end, and with it, increased policy certainty for cotton producers.

On that note, I will now turn to the Outlook for U.S. Agricultural Exports.

### 2. Increasing competition for export markets

The outlook for trade reveals an increasingly competitive export environment. Strong prices over the past 10 years helped boost U.S. agricultural trade value, which has more than doubled since the mid-2000s, growing at an average rate of over 8.5 percent per year. But it also encouraged other countries to increase production for sale abroad. In addition, stock levels for many commodities are up globally resulting from two years of record production, which will serve to soften export demand for 2015.

U.S. agricultural exports are forecast at \$141.5 billion for fiscal year 2015 (FY2015), the second highest year on record (figure 11). That total is down from last year, but much of

the reduction in value is due to lower prices for grain and feed exports as volumes are up for several sectors, including soybeans and soybean products, cotton, and rice. Over the past 10 years, agricultural exports have increased by more than 125 percent. Agricultural exports to China are expected to be down by about \$2 billion in 2015 relative to 2014, but China is expected to remain the largest destination for US agricultural products for the fifth consecutive year.

The FY2015 forecast for grain and feed exports is down to \$29.9 billion on lower volumes of wheat, corn, and feed and fodders, and increased competition from other suppliers. Oilseed and product exports are forecast at \$30.9 billion, down in value, but up in volume. Soybean exports are projected to exceed 48 million metric tons in FY2015, a record level if realized. Similarly, soybean meal and oil exports are expected to reach record volumes in 2015. The soybean export forecast has been raised \$1.5 billion since November with strong demand from China. Lower unit values more than offset a higher volume to result in a drop in cotton exports to \$3.7 billion in FY2015, down \$900 million from last year. The export forecast for livestock, poultry, and dairy is lowered \$2 billion from FY2014 to \$31.8 billion this year, with reductions to poultry, pork, dairy, and other livestock products outweighing gains to beef and yeal.

China remains the leading importer of U.S. soybeans, purchasing more than 60 percent of our exports in 2014. In December, China purchased more than 7.5 million metric tons of soybeans from U.S. producers, a record month, which exceeds by more than three times the annual import demand for corn in China in 2014/15 (figure 12).

China has been accumulating large stocks of corn since 2012/13 due to their relatively high domestic support prices. We expect China to limit corn imports to prevent its corn stockpile from growing even larger and to dispose of those stocks. China's annual imports of corn-based distillers dried grains (DDGS) of approximately 5 million metric tons now exceed its imports of corn. Similarly, China now purchases the majority of U.S. sorghum and significant amounts of barley (figure 13). USDA projects that China's recent increase in sorghum and barley imports—used mainly as a feed—will continue in the future. In 2014/15, China is expected to import a combined total of sorghum and barley in excess of 11 million metric tons.

While trade with China is expected to remain strong over the next 10 years, we forecast slower demand growth than our earlier projections (figure 14). The most significant change in this year's projections is the expectation of slower growth in Chinese demand for corn imports. Last year, USDA projected that China's corn imports would rise to 22 million metric tons by 2023/24, but this year USDA projects a slower increase to 6.5 million metric tons by 2023/24 and 7.2 million metric tons by 2024/25.

Overall, global trade is expected to increase over the next decade for grain and oilseeds. Global trade is projected to increase by 16 percent for wheat, by 18 percent for corn, and by almost 28 percent for soybeans (figure 15). Based on projected yield growth, the world would need to allocate 50 million more acres of corn, wheat and soybeans to meet the increase in trade demand.

High prices over the past few years have provided incentives worldwide for increased acreage and investments in improved technologies. Double-cropping in South America has increased sharply over the past 5 years and the amount of high value seed purchased by producers in Russia and Ukraine has grown substantially over the same time. U.S. producers can expect stiff competition for world markets from Brazil (soybeans, corn), the Black Sea countries (wheat, corn) and other traditional suppliers.

The United States is expected to remain the world's largest exporter of corn and indeed the U.S. share of global corn trade is expected to grow from 40 percent in 2015/16 to 45 percent over the 10-year projection period. However, that trend is not expected for other crops. The United States is expected to be the largest exporter of soybeans in 2015/16, but Brazil is expected to surpass the United States in 2016/17 and to grow its share of global trade to 46 percent by 2024; the U.S. share is expected to fall to 33 percent by 2024. The United States is expected to remain the largest exporter of cotton over the next 10 years, although other countries will cut into the U.S. share of that trade as well. The EU is expected to become the world's largest wheat supplier to the global market in 2014/15 on a record crop. The United States was the largest exporter in 2013/14, but is expected to lose market share to the EU and Russia over the next 10 years.

The projections are constantly subject to changes in market conditions. Agricultural policies change, as we have recently seen in Chinese cotton policy. Economic growth will be higher or lower than anticipated leading to changes in the relative strength of currencies and the ability of consumers to purchase imports, as we have recently seen in South America and Europe. One potential boost to the projected outlook for trade is anticipated reductions in trade barriers. We are on the cusp of realizing several regional trade agreements with the potential to lower barriers and boost trade and economic returns significantly (figure 16). Negotiations on the Trans-Pacific Partnership, better known as TPP, have made substantial progress in recent months. The 12 partners in TPP encompass a market for agricultural imports that averages nearly \$300 billion, over 50 percent of which is supplied from among the TPP partners. Countries involved in TPP already, such as our NAFTA partners, account for more than 40 percent of our global agricultural exports and nearly 50 percent of our agricultural imports. Lower trade barriers should increase those trade volumes and improve returns to producers.

The U.S.-EU Transatlantic Trade and Investment Partnership, better known as TTIP, has a longer road ahead of it, with a number of issues still to be worked out, many involving agricultural trade. A TTIP agreement, however, has the potential to turn around steady declines in the U.S. market share for agricultural products in the EU resulting from increasing international competition and a growing number of non-tariff barriers. While all imports of agricultural products into the EU have increased by more than 150 percent in the last 15 years, U.S. exports to the EU have grown by only 82 percent, even as U.S. agricultural exports overall have grown by 181 percent.

Ambassador Vetter, Chief Agriculture Negotiator for the Office of the U.S. Trade Representative, will provide additional insights on TPP and TTIP at this evening's dinner speech.

### 3. Record crops build stock levels

In tomorrow's commodity outlook sessions, our analysts will go through USDA's projected balance sheets for the 2015/16 marketing year in detail. Today I will confine my comments to what I see as the major trends in the current supply and demand outlook for major field crops and provide the first look at acreage and crop prices for the upcoming season.

The historically high commodity prices of the last several years encouraged investment and expanded the production of many crops. Coupled with good growing conditions last year in several regions, we have had back-to-back record world production for corn, soybeans and wheat in 2013/14 and 2014/15. Those large crops for many grains and oilseeds have allowed for the rebuilding of stocks for most commodities (figure 17).

While world stock levels have increased, they have been accompanied by large increases in demand, with record use in 2013/14and 2014/15 for corn, soybeans, and wheat. As a result, replenished stocks measured in days of use will remain below the burdensome levels seen for most crops in the late 1990s and early 2000s. Prices have moderated with the increase in stock levels, as anticipated, but here too, remain above levels seen in the period 2000-2003.

Larger stocks domestically and globally mean prices are likely to be less sensitive to adverse market conditions and could stabilize price volatility even if a major production shortfall were to occur in 2015. Soybean stocks have rebuilt over the past two years and are now at record levels. Cotton stocks continue to increase reflecting the large inventories of cotton held by China. During 2011/12 and 2012/13, China's cotton imports were robust while the Chinese government stockpiled large volumes of domestic cotton. The stockpiling temporarily inflated global cotton demand, but now China is cutting back on cotton imports. Potential changes in China's cotton supports may end the accumulation of stocks, but concerns about how and when government inventories will be released hang over the market.

Row crop prices have declined significantly from record highs in recent years, but remain well above levels seen in the early 2000s. Consecutive record crops have trimmed prices for many crops. Further price reductions are expected for the 2015/16 crop year, falling near Farm Bill reference prices for many crops. Wheat prices for 2015/16 are estimated at \$5.10 per bushel, a decline of 15 percent from the current year (figure 18); the PLC reference price for wheat is \$5.50 per bushel. Corn prices are projected to fall to \$3.50 per bushel for 2015/16; the reference price for PLC is \$3.70 per bushel. Soybeans prices are forecast at \$9.00 per bushel in 2015/16; the reference price for PLC is \$8.40 per bushel. The all-rice price is forecast at \$13.10 per hundredweight for 2014/15 (the reference price for long-grain rice is \$14.00 per hundredweight). Cotton prices are projected at 60 cents per pound (cotton it is not covered by the PLC program).

In 2015, U. S planted area for the 8 major crops is expected to decline modestly, falling by 3.3 million acres to 254.6 million as falling crop prices and narrowing production margins push some acres out of production even as Conservation Reserve Program (CRP) area continues to decline (figure 19). Final crop area will depend on relative prices and production costs in the coming months leading up to planting. We have already seen some decline in crop area for 2015, as we saw winter wheat seeding down 1.9 million acres from a year earlier. An increase in spring wheat seedings, durum in particular where price premiums are providing a strong incentive for producers, should offset some of this decline. Overall wheat area is expected to be down 1.3 million acres.

Overall corn and soybean acreage is expected to total 172.5 million acres, down 1.8 million acres from last year. Corn area shows the single largest reduction with area expected to fall 1.6 million acres in 2015 to 89.0 million acres, down 8.2 million acres from its recent peak in 2012. Soybean area is expected to fall modestly from its record area in 2014 to 83.5 million acres, with movement out of soybeans tempered by its lower operating costs and forward marketing opportunities in the past few months. Changes in expected harvest-time prices in the coming weeks will determine the final area mix between corn and soybeans. Area expansion of the minor feed grains of barley, oats, and sorghum are driven by recent higher prices for these crops as sorghum prices have recently increased relative to corn due to strong demand from China. The all-cotton area is expected to decline by 1.3 million acres or just over 12 percent from 2014/15 due to weak world demand and world stocks that are equivalent to nearly a year's worth of consumption. Similarly, the move by the Thai government to reduce the large volume of stocks built over the last few seasons is softening rice prices, long grain in particular. Long- grain area is expected to decline, while medium- and short-grain areas are likely to expand. Overall, a decline in rice area of less than one percent to 2.9 million acres is expected in 2015.

Cash receipts for vegetables, fruits and nuts are expected to decline in 2014. There is substantial uncertainty about the potential effects of the continuing California drought. The 2015 export forecast for horticultural products is up at a record \$36.0 billion. Fresh fruit and vegetable exports are forecast at \$7.7 billion. Exports to Canada, Europe, and Japan are expected to continue expanding. Processed fruit and vegetable exports are forecast at \$8 billion, with unit values for several processed products expected to continue rising with increasing demand from major markets. Whole and processed tree nut exports are forecast at \$9 billion on strong shipments to Europe and China.

However, cash receipts for the sector are expected to fall in 2015 due to continuing production problems in California and Florida (figure 20). California accounts for about one-third of U.S. vegetable production and almost two-thirds of U.S. fruit and nut production. Serious shortfalls in water allocations in the Central Valley could affect this specialty crop production, reducing production and cash receipts, even while increasing fruit and vegetable prices sharply. In addition, Florida citrus output is down significantly due to the continued challenge posed by huanglongbing, or citrus greening. The value of the Florida citrus crop has fallen by nearly 40 percent since 2012.

# 4. Record meat and dairy production expected in 2015

Turning to the livestock, dairy and poultry sectors, we project that total meat and poultry production will be at a record high of 95 billion pounds in 2015, mostly due to record pork and broiler production. Milk production is also projected to be at record levels in 2015, at 211.5 billion pounds (figure 21). Those production increases reflect producer response to the record high prices for livestock, dairy, and poultry products seen in 2014, coupled with falling feed costs. As illustrated by rising feed price ratios, profitability margins for the cattle, hog, and broiler industry improved following the low margins seen in 2013, but are likely to start coming down for hogs and broilers as production expands in 2015 (figure 22).

Prospects for expansion in the beef sector have been constrained by the increasingly tight cattle supplies. The inventory reached a cyclical low as of January 1 2014, with the lowest cattle and calf inventory since 1952. Cattle numbers have been trending down since the 1970s, and drought and other adverse impacts on forage in the South over the past 5 years have driven even larger declines in the cattle herd than might otherwise have been expected. Drought continues in the Southwest, but there have been some signs of recovery in the Southern Plains and elsewhere (figure 23). Returns to cow-calf operators have been at levels that encourage herd retention which would point to a turnaround in the cattle cycle. Producers are now responding by increasing herds; the number of beef cows on January 1, 2015 was up 2 percent from 2014 and the number of heifers retained for addition to the cow herd was 4 percent higher. The latest NASS cattle inventory last month recorded the first increase in herd size since 2007.

Likewise in the hog sector, positive producer returns and lower feed costs over much of 2014 have set the stage for strong expansion. Producers have responded to last year's outbreak of Porcine Epidemic Diarrhea virus (PEDv) by increasing the weight of slaughter hogs and increasing farrowing intentions. While occurrences of PEDv uptick during the winter months, the increase this season has not been as significant as last year (figure 24), according to the American Association of Swine Veterinarians. As a result, piglets per litter have remained high relative to last year.

U.S. exports continue to be strong for meat and poultry (figure 25). Exports in fiscal year 2015 are expected to be down slightly from the last year due in part to the strong U.S. dollar, which has eroded export competitiveness. However, those exports are projected to grow over the next 10 years. The forecast for livestock, poultry, and dairy product exports is down from the November forecast by nearly \$2 billion to \$31.8 billion on lower prices and volumes. Broiler exports remain strong, but down slightly from 2014, a record year, and over the next 10 years, broiler exports are expected to grow by 16 percent. Pork exports too are expected to be down from 2014, but are expected to expand 15 percent over the next decade. Beef and veal exports are expected to fall slightly in 2015, due to the high beef prices reflecting tight supplies, but are expected to grow by almost 38 percent over the next 10 years. Dairy exports, which have shown remarkable growth over the past 5 years, are expected to fall slightly in 2015 (figure 26). Over the next 10 years, however, dairy product exports are expected to grow 34 percent.

As a result of increased production and falling export demand in 2015, prices for pork, broilers, and dairy products are projected to fall from last year's levels. Hog prices are expected to fall to \$56 per hundredweight, down 26 percent from last year's record prices (figure 27). Broiler prices are expected to remain high, although down 4 percent from last year's record prices. In contrast, steer prices are expected to increase and are forecast at record levels in 2015 due to continued tight supplies and the time required to expand production.

Milk prices are expected to fall 26 percent from last year's records. During 2014, dairy product prices were at record levels due, in part, to strong domestic and international demand for U.S. dairy products, particular cheese and butter. As the prospect for reduced exports weighs on the dairy market, U.S. prices will fall ahead of increased production. While dairy producers benefit from low feed prices, the expectation for falling product prices at the end of 2014 and into 2015 indicates the margins between feed costs and milk prices, as measured by the Margin Protection Program (MPP), may approach \$8 per hundredweight by the spring of 2015 (figure 28). A majority of both dairies and production are enrolled in MPP for 2015.

# 5. Farm sector strength reflected in low debt-to-asset ratio

Overall, the financial health of the agricultural sector is strong as it enters a period of lower crop prices. High net farm income levels have helped U.S. producers to strengthen their financial base over the past four years. Heading into spring planting this year, USDA estimates that producers' debts relative to assets are at a historic low point, confirming that the farm sector remains strong. While net farm income is projected to fall in 2015 to \$73.6 billion, the lowest since 2007, the debt-to-asset ratio is expected to rise only slightly to 10.9 percent, the third lowest level since USDA began calculating the measure in 1960 and considerably below the levels experienced during the 1980s farm financial crisis when debt-to-asset ratios were above 20 percent (figure 29). To put the debt level of the 1980's in context, farmland values would have to fall by more than half to raise the debt-to-asset ratio to more than 20 percent, assuming no change in farm debt.

In real terms, the values of machinery, inventory, and land held by producers are at record levels heading into to 2015 (figure 30) illustrating how above average farm income has helped producers strengthen their balance sheets in recent years. Machinery and inventory asset values are projected to rise again to record levels in 2015, while farmland asset values are expected to fall slightly.

Land values are expected to decline by less than one percent overall in 2015. Although some regions may still see additional increases, some regions may experience larger declines. Recent data from the Chicago Federal Reserve Bank indicates there have been year-over-year declines of 7 percent for farmland values in Iowa, but that farmland values in Wisconsin actually rose by 2 percent in the fourth quarter (figure 31). Producers in some regions with high cash rents and falling prices may face some adjustments as they maneuver to cover operating costs.

### 6. Food price inflation to remain low

Turning to the implications of agricultural production and commodity prices for food prices, annual food inflation was 2.4 percent in 2014, below the 20-year average (figure 32), though some food prices increased at a much higher rate in 2014. Year-over-year beef prices rose more than 12 percent last year (figure 33). Poultry was the only livestock product category to have product prices rise by less than the average rate of food inflation, increasing by only 2 percent last year. Prices for the other food categories remained about the same last year, except for fruit prices, which increased by almost five percent as a result of drought impacts in California and citrus greening impacts in Florida. USDA projects that food inflation will remain in the 2 percent to 3 percent range for 2015. Lower energy prices and lower food prices for cereals, pork, and dairy will offset higher prices for beef, eggs, fruit, and nuts.

#### 7. Conclusions

To conclude, record global crops for grains and oilseeds have contributed to stock rebuilding, lowering concerns about price volatility, softening export demand, and reducing expected prices for the 2015/16 marketing year. Lower prices will lead to fewer planted acres, which are forecast down from last year by about 1.3 percent for the major field crops. Trend yields and reduced planted acres would be expected to lead to 2015 crop production slightly lower than this past year's record level.

Livestock and dairy producers will continue to benefit from lower feed costs; production for livestock, poultry, and dairy all appear to be poised for increases to record levels in 2015. However, increased production and lower expectations for meat and dairy exports contribute to lower expected prices for hogs, broilers, and milk products.

Lower expected prices for crops and livestock also imply a lower forecast for farm incomes. Nevertheless, debt-to-asset ratios remain at historically low levels and farm equity is at a historic high point heading into 2015. Those measures indicate the financial health of the agricultural sector is strong. While producers hold record levels of assets to help adjust to lower price levels in 2015, we expect that producers will reduce inputs and that cash rents will come down in 2015.

Overall, the forecast for the coming production year is bright. Record production has meant that stock levels are higher and prices are lower, but producers will benefit from record asset levels and from new farm programs intended to cushion declines in farm revenues. New crop insurance products are covering more products than ever before. In addition, falling energy prices will reduce input and transportation costs. Regional disruptions in port and rail services are expected to be resolved. While agricultural trade has become increasingly competitive, the resolution of old trade disputes and prospects for new agreements promise to open new opportunities to U.S. producers. Lastly, the technological advances in our ability to collect, process, and report data offer new ways to optimize field production, improve risk management, and enhance market transparency.